



Kick-off meeting WP PWIE SP X2

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Be campaign at VTT



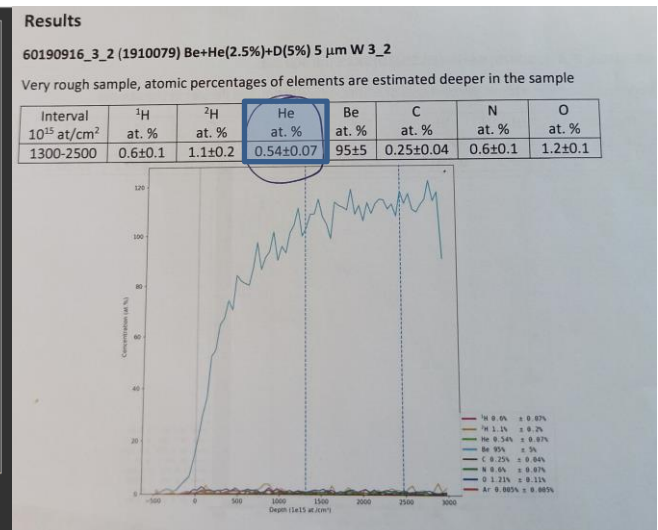
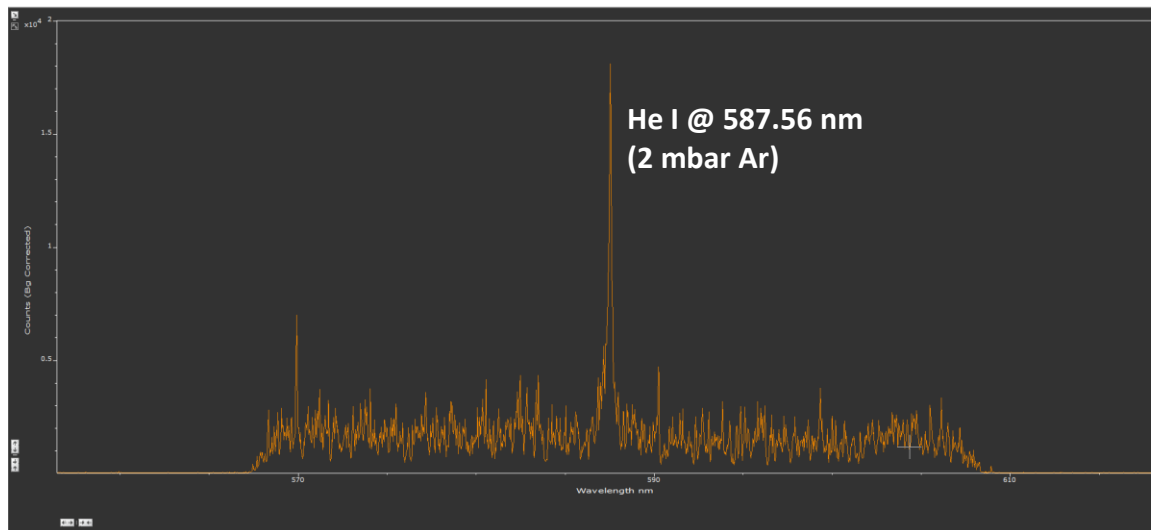
➤ Some results on He loaded samples

The activity included the LIBS analysis of reference Be coatings under Ar atmosphere (2 – 100 mbar) at VTT, to identify the best spectral region to detect both He and other elements of interest of the coating.

The analyses have been performed on **sample 60190916 (nominal atomic percentages Be-He(2.5%)-D(5%)+ others)**

The 587.56 nm He I line I was detected free of interference at laser energy E = 51 mJ, gate width = 200 ns, gate delay = 200 ns, Ar atmosphere 2 mbar

TOF-ERDA results for He: 0.54 ± 0.07 % atomic (realistic concentration)



Be campaign at VTT

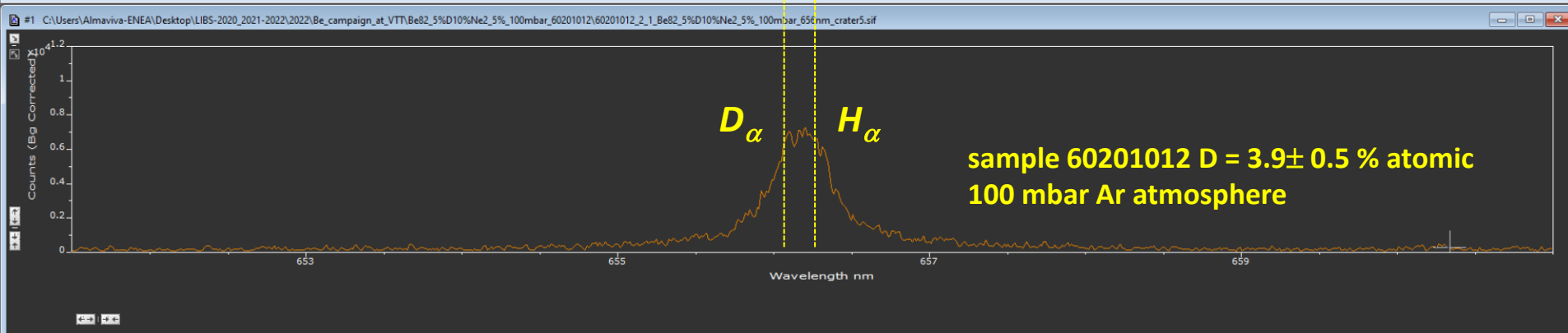
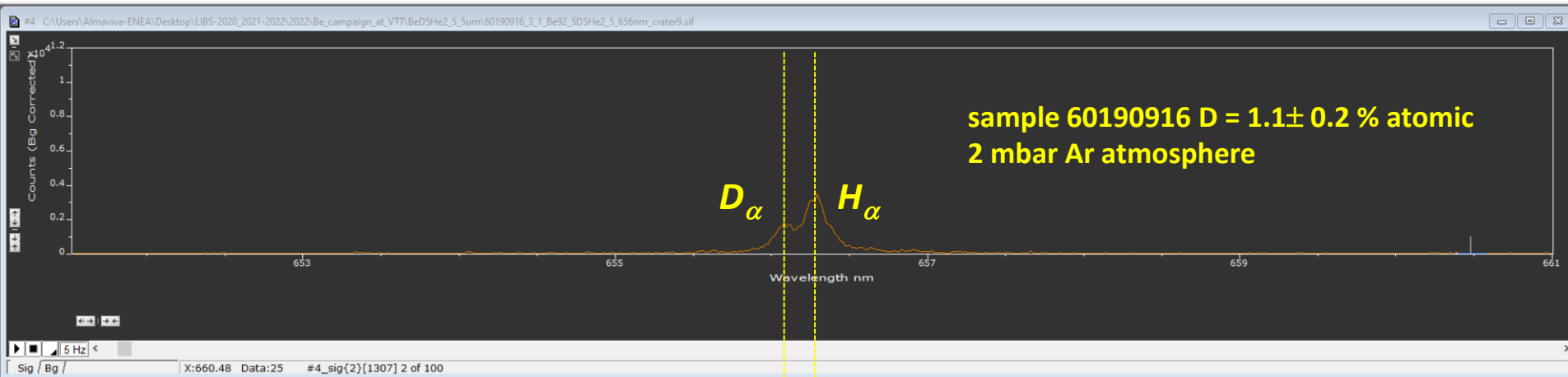


➤ First results on He/D loaded samples

LIBS analysis of reference Be coatings under Ar atmosphere (2 – 100 mbar)

sample 60190916 D = 1.1 ± 0.2 % atomic (by TOF-ERDA results).

sample 60201012 D = 3.9 ± 0.5 % atomic (by TOF-ERDA results).



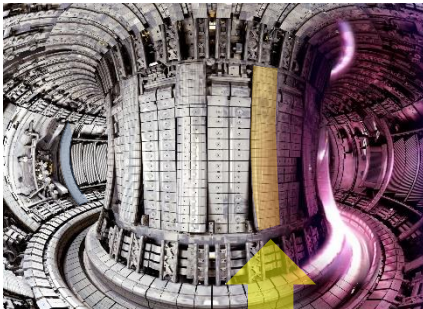
Be campaign at VTT



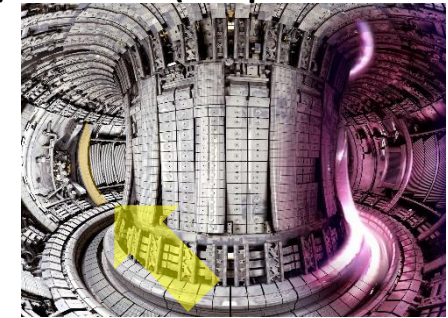
➤ LIBS on real samples from the Joint European Torus (JET)

The activity included the LIBS analysis of real JET tiles under Ar atmosphere (2 – 100 mbar) at VTT, to characterize them by LIBS in comparison with previous SIMS and TDS analyses.

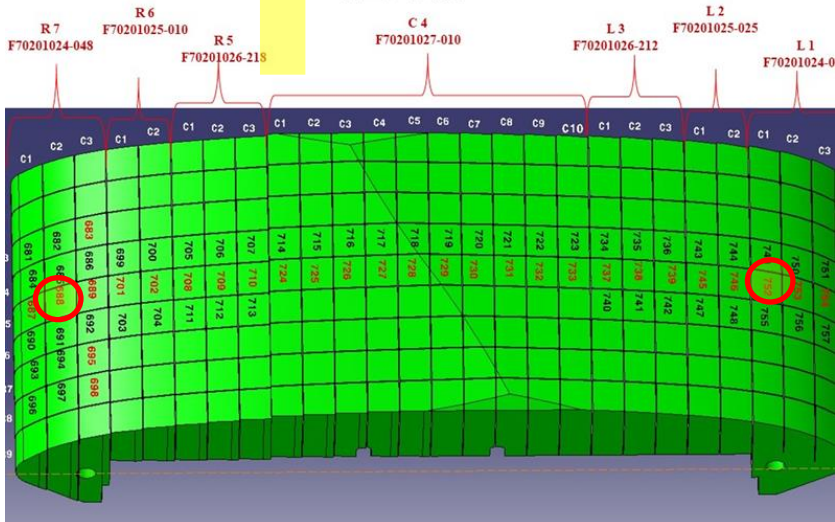
The analyses have been performed on samples from the JET tiles 2XR11 (sample 641) and 4D15 (samples 686 and 755)



A picture of the sample 2XR11-641 before LIBS analysis

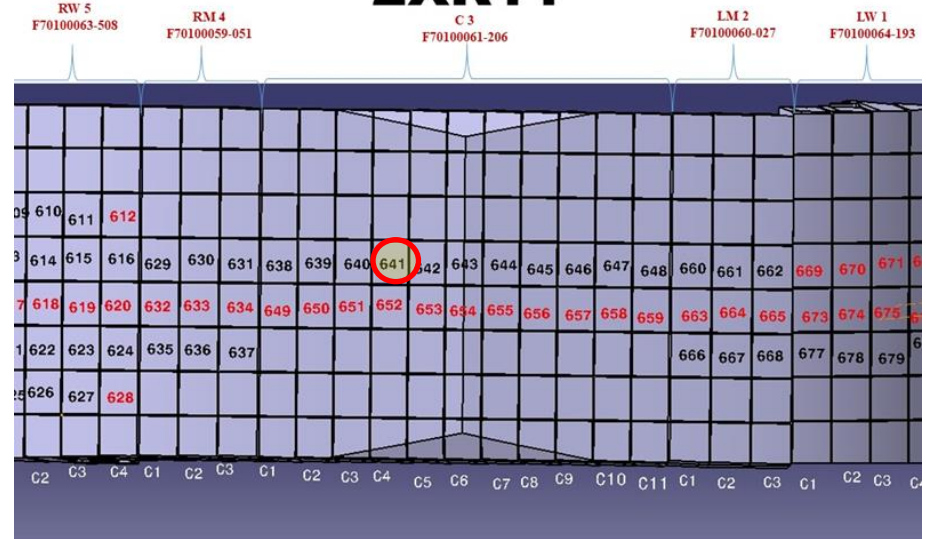


4D15



(from the inner wall guard limiter)

2XR11

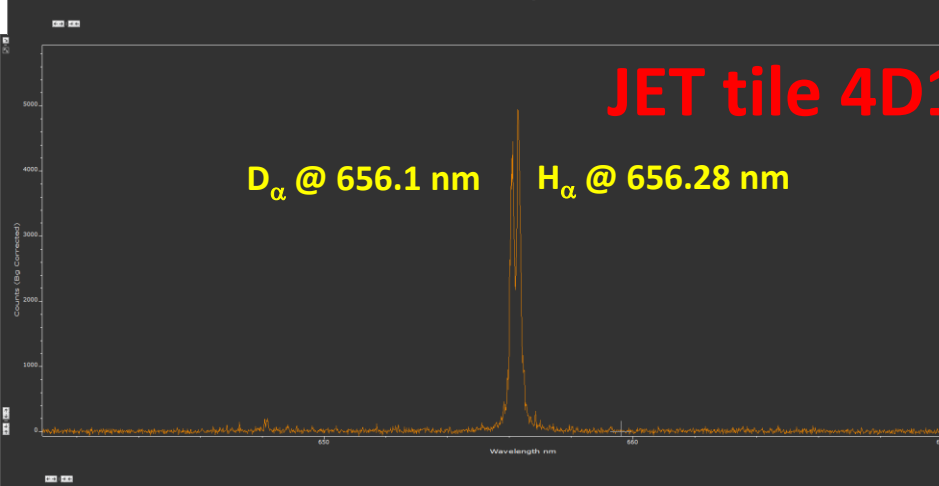
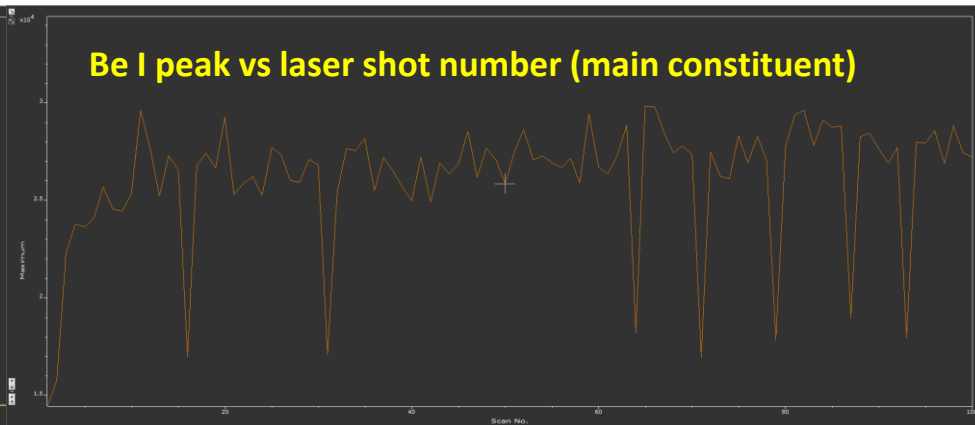
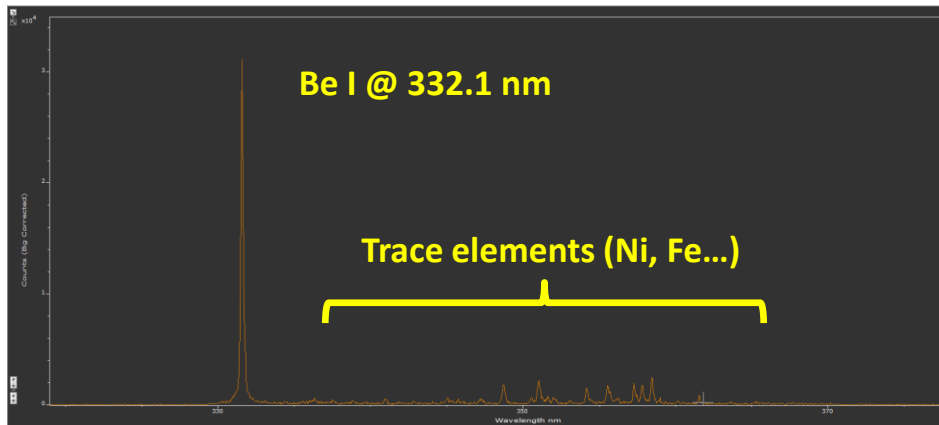


(from the wide outer poloidal limiter)

Be campaign at VTT



JET tile 4D15 sample 711



JET tile 4D15 sample 686

